

September 03, 2015

MEMORANDUM FOR: Distribution Email

FROM: Christine Caruso Magee  
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SUBJECT: Scheduled Operational Changes and Upgrades for  
CPC, OPC, and WPC

The following accelerated items were implemented the past 2 weeks:

RFC #421 – Implemented changes to the LRF product preparation to correct numerous instances of a gempak redirection bug discovered to be more pervasive than previously observed. The bug was preventing proper function of the GPMAP and GDGRIB routines in addition to the GPTEXT routine. Implemented on August 19 at 1200Z. (CPC)

RFC #422 – Removed an errant 'index.php' file which appeared in the WPC origin home page directory. Implemented on August 25 at 1348Z. (WPC)

RFC #423 – Implemented a change to the VGF file generation in the auto-forecast, in which an improper termination of a gempak routine (missing gpend) was causing a problem in the operational account. Implemented on August 28 at 1200Z. (CPC)

RFC #424 – Added entries to the 'datatype.tbl' and 'mod\_res.tbl' files to allow forecasters to view the 0.5 degree GEFS parallel output. Originally, all of the output for the 0.5 degree and 1.0 degree output were in the same directory, preventing them from being viewed properly in NMAP. This was resolved by splitting the 0.5 degree output into a new directory. Implemented on September 1 at 1800Z. (WPC)

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The following will be implemented the week of September 7, 2015:

RFC #425 – The monthly archive script 'shef-file-cleanup.bash' is being updated to account for a file name change in the ftp area. To be implemented on September 8 at 1200Z. (CPC)

RFC #426 – Install new Week 3-4 web pages in CPC Compute Farm web directories. These pages will not be linked from the CPC home page until the go-live date of September 18. They contain a command which tells search engines

not to report them in searches so they are not yet accessible to the outside world. To be implemented on September 8 at 1200Z. (CPC)

RFC #427 – The input data directories for the process which makes seasonal observation files changed. The control files for this process are being updated. To be implemented on September 8 at 1200Z. (CPC)

RFC #428 – Correct a deadline for the 1200Z Pacific Wind/Wave Analysis product. This deadline should be 1455Z but is currently 1500Z in production. To be implemented on September 9 at 1130Z. (OPC)

RFC #429 – Update documentation to add comments explaining how to execute the 'send\_via\_dbnet.csh' script with its various arguments. To be implemented on September 9 at 1130Z. (OPC)

RFC #430 – Change the satellite data source directory of some web images to a new directory structure. Will be done in concert with NCO RFC #1259. To be implemented on September 9 at 1200Z. (OPC)

RFC #431 – Make enhancements to the probabilistic wind speed forecast guidance software – add a new ensemble system wind speed category (15+ kts) and ensemble system mean PMSL to the graphics images that are publically available on the web and in NTRANS. Also, replace existing scripts with a pair of scripts that handle all required gempak graphics devices (gif and nc), domains, and ensemble systems, and moves opc\_test processing to opcops. To be implemented on September 9 at 1400Z. (OPC)

RFC #432 - Initial installation of the software bundle (c-shell, GEMPAK) to produce Week 3/4 outlooks graphics, grib2s, and verification text files. This goes live on Sep. 18. It will run on the CPC CF. Users are the public (end state delivery is on CPC's web site) and CPC (internally, for verification and research). To be implemented on September 9 at 1600Z. (CPC)

RFC #433 - Initial installation of software (c-shell, standard RHEL commands) to transmit the Week 3/4 products from the archives to the rsyncd area on the CPC Compute Farm, to be synced to CPC's origin/web. To be implemented on September 9 at 1600Z. (CPC)

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The following CPC OPC WPC RFC(s) are in progress:

RFC #384 – The salinity fields in NOS's CBOFS model have drifted this summer by about 4 PSU, negatively impacting the Ecological Forecasts which use the CBOFS for Vibrio Vulnificus and Sea Nettle forecasts. A bias correction has been developed by the Ecological Forecast Pathogens group. This correction

will be applied every 2 weeks through early fall or until the CBOFS model has been corrected. The Vibrio and Sea Nettles web pages will be restarted each time after the salinity correction has been implemented. Implementation began on July 22 at 2100Z and should be completed by October 27. (OPC)

RFC #415 - Update scripts for WPC's Winter Weather Desk to accommodate the change to 24-hour coverage of the desk by WPC staff. Previously, WPC issued Day 1-3 forecasts twice daily. With 24-hour coverage, WPC forecasters will issue updates when needed, so the scripts need to be updated to check the issuance times. Implementation began on August 25 at 1500Z and should be completed by 2200Z on September 8. (WPC)

RFC #416 - Update scripts for the Day 4-7 winter weather outlook. Changes are being made to accommodate new threshold probabilities (changed from .1 to .25) and make new VGF files for freezing rain (ZR threshold is .05). Implementation began on August 25 at 1800Z and should be completed by 2200Z on September 8. (WPC)

RFC #418 - Add an NMAP2 display of WPC average Snow Liquid Ratio (SLR). GRIB2 data for this parameter is already sent to the WFOs, but this display is needed in 6-hr intervals for WPC forecasters. Implementation began on August 27 at 1600Z and was to have been completed by 2200Z on September 1. (WPC)

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The following NCO RFCs to be implemented the week of September 7, 2015 may affect CPC, OPC, and/or WPC:

RFC #1233 - ECMWF\_MOS v1.0.4 – Add alerts for files 'mdl\_ecmtxt.t00z' and 'mdl\_ecmtxt.t00z.tran'. These 2 ECMWF MOS ensemble files were requested by WPC. Originally scheduled to be implemented on August 25 at 1200Z; postponed to September 8 at 1200Z due to personnel issue.

RFC #1247 – GFDL v13.0.3 – Update a post processing script to put WMO header WHXX04 onto the text file from which it was missing, so that this file may be disseminated. To be implemented on September 8 at 1200Z.

RFC #1249 – HIRESW v6.1.5 – Major update of the HiResW model. See the TIN at <http://www.nws.noaa.gov/os/notification/tin15-27hireswaab.htm> for details. To be implemented on September 8 at 1200Z.

RFC #1252 – HWRF v9.0.15 – Fix a bug in the jhwrf\_merge job that performs a second copy of the hurricane vortex wind field at the southwest corner of domain 1. This bug could cause the HWRF to crash due to extreme gravity waves near the domain edge. This fix removes the 2<sup>nd</sup> copy of the vortex wind field. To be implemented on September 8 at 1230Z.

RFC #1254 – Update CPC Compute Farm linux boxes 1, 2, 3, 7, 8, and 9 to RHEL6, to provide a test/staging area for CPC processes prior to operational deployment. To be implemented on September 8 at 1400Z.

RFC #1257 – Install one 24-inch monitor on WPC linux box qpf2 and another on WPC linux box mdldiag. These systems will be rebooted after the monitors are attached. To be implemented on September 9 at 1000Z.

RFC #1259 – NCOSRV Dataflow v2.7.0 – Modify the McIDAS/spider tables on NCOSRV to optimize the satellite projections for the NCWCP-based Centers' use. This was coordinated and tested by all local Centers as well as through SPC and AWC. To be implemented on September 9 at 1200Z.

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The following NCO RFC(s) are in progress and may affect the local Centers:

RFC #1096 – WCOSS: SP5 Software Upgrade v5.0 - IBM will apply the Service Pack 5 software upgrade to the WCOSS systems. Included in this upgrade are changes to RHEL, GPFS, IBM PE, IBM xCAT and several other components. IBM software support has released its latest HPC software stack service pack and is urging all x86\_64 based Infiniband HPC Cluster customers to apply it to maximize product support, and address some known system issues. There will be a 2-day outage on Gyre on September 10 and September 11 to install the software upgrade.

RFC #1156 – WCOSS: TO4 network tie-in – Connect the Cray systems' Ethernet and Infiniband networks to WCOSS Phase 1 and Phase 2 network infrastructure. Work was completed on the Reston, VA systems in early August. There will be a 1-day outage of Gyre tentatively scheduled for September 18 to connect the Cray system Surge to Gyre.

RFC #1189 – WCOSS Dataflow v1.63.8, NCOSRV Dataflow v2.6.21 - The DBNet software on WCOSS and NCOSRV is being modified to begin sending datasets from the parallel Global Ensemble Forecast System (GEFS) for evaluation. Implementation began on August 11 at 1200Z; was to be completed by September 1; completion was delayed by Critical Weather Day status to September 8.

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Please note that security-related RFCs are never listed in the RFC memo.  
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---- OPERATIONAL ANNOUNCEMENTS ----

1. The CPC/OPC/WPC Configuration Management documents are available at <https://sites.google.com/a/noaa.gov/nws-ncep-nco-cm/>.

Please review these documents if you have questions prior to submitting changes for CPC/OPC/WPC configurable items.